

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	5923	hepatocyte adj growth adj factor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 15:08
L3	7664	L2 or HGF	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 15:09
L4	279769	antibody or immunoglobulin	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 15:09
L5	6083	L4 and L3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 15:10
L6	3862	neutral\$5 and L5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 15:22
L7	448	H61	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 15:22
L8	177	H68	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 15:22
L9	41	L7 and L8	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 15:29

EAST Search History

L10	1	L6 and L9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 15:23
L11	584	L7 or L8	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 15:30
L12	11	L11 and L6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 18:03
L13	62441	chung.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 18:04
L14	27	L13 and L2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 18:05
L15	60	L13 and L3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 18:09
L16	3	Hur.in. and L3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/05/21 18:09

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FILE COVERS 1907 - 22 May 2007 VOL 146 ISS 22
FILE LAST UPDATED: 21 May 2007 (20070521/ED)

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They are available for your review at:

<http://www.cas.org/infopolicy.html>

```
=> s hepatocyte (s) growth (s) factor
    48807 HEPATOCYTE
    43922 HEPATOCYTES
    63555 HEPATOCYTE
        (HEPATOCYTE OR HEPATOCYTES)
    1347081 GROWTH
        4495 GROWTHS
    1349368 GROWTH
        (GROWTH OR GROWTHS)
    1039109 FACTOR
        939318 FACTORS
    1637928 FACTOR
        (FACTOR OR FACTORS)
L1      8771 HEPATOCYTE (S) GROWTH (S) FACTOR
```

```
=> s HGF
    5273 HGF
    202 HGFS
L2      5375 HGF
        (HGF OR HGFS)
```

```
=> s L1 or L2
L3      9819 L1 OR L2
```

```
=> s neutral? (s) epitope
    512504 NEUTRAL?
    40689 EPITOPE
    42171 EPITOPES
    61620 EPITOPE
        (EPITOPE OR EPITOPES)
L4      3106 NEUTRAL? (S) EPITOPE
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=> s L3 and L4
L5 4 L3 AND L4

=> d ibib abs

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:104586 CAPLUS

DOCUMENT NUMBER: 146:309794

TITLE: A **neutralizable epitope** is induced
on **HGF** upon its interaction with its
receptor cMet

AUTHOR(S): Kim, Kisu; Hur, Youngmi; Ryu, En-Kyung; Rhim,
Jung-Hyo; Choi, Cha Yong; Baek, Cheol-Min;

Lee,

Jae-Ho; Chung, Junho

CORPORATE SOURCE: Cancer Research Institute, Seoul National
University

SOURCE: College of Medicine, Seoul, S. Korea
Biochemical and Biophysical Research
Communications

(2007), 354(1), 115-121

CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new conformational **neutralizable epitope** is created
on **hepatocyte growth factor (HGF)**,
when it interacts with its receptor, cMet. By immunizing
rabbits with

HGF-cMet complex, we successfully generated a monoclonal antibody
(SFN68) that inhibits **HGF**-cMet interaction, and blocks the biol.
function mediated by **HGF**. To define the epitope, we screened
out an epitope-mimicking peptide, KSLSRHDHIHHH, from a phage
display of

combinatorial peptide library. In mol. mimicry this peptide
bound to cMet

and inhibited **HGF**-cMet interaction. No humoral response was
induced to this epitope-mimicking peptide when immunization was
done with

HGF alone.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

=> d 2-4 ibib abs

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:94360 CAPLUS

DOCUMENT NUMBER: 144:169296

TITLE: Fully Human Monoclonal Antibodies to
Hepatocyte Growth Factor
 with Therapeutic Potential against **Hepatocyte Growth Factor/c-Met-Dependent Human Tumors**

AUTHOR(S): Burgess, Teresa; Coxon, Angela; Meyer, Susanne; Sun, Jan; Rex, Karen; Tsuruda, Trace; Chen, Qing; Ho, Shu-Yin; Li, Luke; Kaufman, Stephen; McDorman, Kevin; Cattley, Russell C.; Sun, Jilin; Elliott, Gary; Zhang, Ke; Feng, Xiao; Jia, Xiao-Chi; Green, Larry; Radinsky, Robert; Kendall, Richard

CORPORATE SOURCE: Department of Oncology Research, Amgen, Inc., Thousand Oaks, CA, USA

SOURCE: Cancer Research (2006), 66(3), 1721-1729
 CODEN: CNREA8; ISSN: 0008-5472

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB C-Met is a well-characterized receptor tyrosine kinase for **hepatocyte growth factor (HGF)**. Compelling evidence from studies in human tumors and both cellular and animal tumor models indicates that signaling through the **HGF/c-Met** pathway mediates a plethora of normal cellular activities, including proliferation, survival, migration, and invasion, that are at the root of cancer cell dysregulation, tumorigenesis, and tumor metastasis. Inhibiting **HGF**-mediated signaling may provide a novel therapeutic approach for treating patients with a broad spectrum of human tumors. Toward this goal, we generated and characterized five different fully human monoclonal antibodies that bound to and neutralized human **HGF**. Antibodies with subnanomolar affinities for **HGF** blocked binding of human **HGF** to c-Met and inhibited **HGF**-mediated c-Met phosphorylation, cell proliferation, survival, and invasion. Using a series of human-mouse chimeric **HGF** proteins, we showed that the **neutralizing** antibodies bind to a unique **epitope** in the ζ -chain of human **HGF**. Importantly, these antibodies inhibited **HGF**-dependent autocrine-driven tumor growth and caused significant regression of established U-87 MG tumor xenografts. Treatment with anti-**HGF** antibody rapidly inhibited tumor cell proliferation and significantly

increased the proportion of apoptotic U-87 MG tumor cells in vivo. These

results suggest that an antibody to an epitope in the {szligbeta}-chain of

HGF has potential as a novel therapeutic agent for treating patients with HGF-dependent tumors.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:429434 CAPLUS

DOCUMENT NUMBER: 142:480775

TITLE: Neutralizing antibody to **hepatocyte growth factor**

INVENTOR(S): Chung, Junho; Hur, Youngmi

PATENT ASSIGNEE(S): National Cancer Center, S. Korea

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
DATE			
-----	----	-----	-----
WO 2005044848	A1	20050519	WO 2004-KR2888
20041109			
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,		
ZW, AM, DE, DK, PT, RO, ML, MR,			

NE, SN, TD, TG
 KR 2005045419 A 20050517 KR 2003-79482
 20031111
 AU 2004287743 A1 20050519 AU 2004-287743
 20041109
 EP 1694700 A1 20060830 EP 2004-800068
 20041109
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
 MC, PT,
 IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
 CN 1878790 A 20061213 CN 2004-80033164
 20041109
 US 2007036789 A1 20070215 US 2006-578836
 20060510
 IN 2006DN03385 A 20070504 IN 2006-DN3385
 20060612
 PRIORITY APPLN. INFO.: KR 2003-79482 A
 20031111
 WO 2004-KR2888 W
 20041109

AB The authors disclose the preparation and characterization of
 neutralizing
 antibodies against human **hepatocyte growth**
factor (HGF). The antibodies are capable of preventing
HGF binding to its receptor and may find utility in treating
 intractable diseases and cancers.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE
 FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:471599 CAPLUS

DOCUMENT NUMBER: 135:194201

TITLE: Neutralizing monoclonal antibodies to
hepatocyte growth factor
 /scatter factor (HGF/SF) display
 antitumor activity in animal models

AUTHOR(S): Cao, Brian; Oskarsson, Marianne; Zhao, Ping;
 Kort,

Eric J.; Fisher, Robert J.; Wang, Ling-Mei;
 Vande

Woude, George F.

CORPORATE SOURCE: Van Andel Research Institute, Grand Rapids,
 MI, 49503,

USA

SOURCE: Proceedings of the National Academy of
 Sciences of the

United States of America (2001), 98(13),

7443-7448

CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The hepatocyte growth factor (HGF

/SF) receptor, Met, regulates mitogenesis, motility, and morphogenesis in

a cell type-dependent fashion. Activation of Met via autocrine, paracrine, or mutational mechanisms can lead to tumorigenesis and metastasis and numerous studies have linked inappropriate expression of

this ligand-receptor pair to most types of human solid tumors.

To prepare

mAbs to human HGF/SF, mice were immunized with native and denatured prepns. of the ligand. Recloned mAbs were tested in vitro for

blocking activity against scattering and branching morphogenesis. Our

results show that no single mAb was capable of neutralizing the in vitro activity of HGF/SF, and that the ligand possesses a min. of three epitopes that must be blocked to prevent Met tyrosine kinase activation. In vivo, the neutralizing mAb combination

inhibited s.c. growth in athymic nu/nu mice of tumors dependent on an

autocrine Met-HGF/SF loop. Importantly, growth of human glioblastoma multiforme xenografts expressing Met and HGF/SF were markedly reduced in the presence of HGF/SF-neutralizing mAbs. These results suggest interrupting autocrine and/or paracrine Met-

HGF/SF signaling in tumors dependent on this pathway is a possible

intervention strategy.

REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

=> s chung J?/au

L6 3733 CHUNG J?/AU

=> s hur Y?/au

L7 112 HUR Y?/AU

=> s L6 or L7

L8 3840 L6 OR L7

=> s L8 and L3

L9 5 L8 AND L3

=> d 1-5 ibib abs

L9 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:104586 CAPLUS

DOCUMENT NUMBER: 146:309794

TITLE: A neutralizable epitope is induced on **HGF** upon its interaction with its receptor cMet

AUTHOR(S): Kim, Kisu; **Hur, Youngmi**; Ryu, En-Kyung; Rhim, Jung-Hyo; Choi, Cha Yong; Baek, Cheol-Min; Lee,

Jae-Ho; **Chung, Junho**

CORPORATE SOURCE: Cancer Research Institute, Seoul National University

College of Medicine, Seoul, S. Korea

SOURCE: Biochemical and Biophysical Research Communications

(2007), 354(1), 115-121

CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new conformational neutralizable epitope is created on **hepatocyte growth factor (HGF)**, when it interacts with its receptor, cMet. By immunizing rabbits with **HGF**-cMet complex, we successfully generated a monoclonal antibody (SFN68) that inhibits **HGF**-cMet interaction, and blocks the biol. function mediated by **HGF**. To define the epitope, we screened out an epitope-mimicking peptide, KSLSRHDHIHHH, from a phage display of combinatorial peptide library. In mol. mimicry this peptide bound to cMet and inhibited **HGF**-cMet interaction. No humoral response was induced to this epitope-mimicking peptide when immunization was done with **HGF** alone.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L9 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:379725 CAPLUS

DOCUMENT NUMBER: 145:26137

TITLE: Functional expression of single-chain variable

fragment antibody against c-Met in the cytoplasm of

Escherichia coli

AUTHOR(S): Heo, Mi-Ae; Kim, Su-Hyun; Kim, So-Yeon; Kim, Yu-Jin;

Chung, Junho; Oh, Min-Kyu; Lee, Sun-Gu

CORPORATE SOURCE: Department of Chemical and Biochemical Engineering,

S. Korea
 SOURCE: Pusan National University, Pusan, 609-735,
 47(1), Protein Expression and Purification (2006),
 203-209
 CODEN: PEXPEJ; ISSN: 1046-5928
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB C-Met, a high affinity receptor for **hepatocyte growth factor/scatter factor**, shown to be overexpressed in a variety of malignant cells, is a potential biomarker as well as a therapeutic target. Thus, single-chain antibody fragment (scFv) specific for c-Met is expected to be efficiently employed in the clin. treatment or imaging of many cancer cells. Here, the authors constructed the expression system for anti-c-Met scFv fused with T7 tag at its N-terminus using pET vector and investigated the expression conditions to achieve a functional and soluble expression of the scFv in the cytoplasm of recombinant *Escherichia coli*. The redox potential of *E. coli* cytoplasm was the most critical factor for the functional expression of anti-c-Met scFv. The employment of a host with oxidizing cytoplasm, *E. coli* trxB/gor double mutant, improved the productivity of functional anti-c-Met scFv by approx. 10-fold compared to the production of anti-c-Met scFv in the reducing cytoplasm of wild type *E. coli*. Productivity of functional anti-c-Met scFv could be further enhanced by co-expressing mol. chaperones such as GroELS, trigger factor, and DsbC with the scFv. Coexpression of DsbC increased the yield of functional anti-c-Met scFv about 2.5-fold in the cytoplasm of *E. coli* trxB/gor mutant compared to the production of scFv without DsbC coexpression. Lowering the IPTG concentration from 1 to 0.05 mM led to the slight enhancement, approx. 1.6-fold, of productivity of functional scFv. Although the use of low temperature for anti-c-Met scFv expression increased the ratio of soluble scFv fraction to insol. fraction, productivity

of soluble scFv decreased owing to the significant reduction of expression rate.

The addition of 0.5 M sucrose in the medium inhibited the formation of intracellular insol. anti-c-Met scFv. To purify the anti-c-Met scFv

simply, the authors fused hexahistidine at the C-terminus of scFv and

purified the scFv showing 98% of purity through the interaction between

Ni²⁺ and histidine.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L9 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1278399 CAPLUS

DOCUMENT NUMBER: 144:49795

TITLE: Generation of a rabbit VH domain antibody
polyspecific

AUTHOR(S): to c-Met and adenoviral knob protein
Im, Shin-Young; Kim, Ki Su; Yun, Chae-Ok;
Kim,

CORPORATE SOURCE: Joo-Hang; Yi, Kye-Sook; Chung, Junho
Cancer Research Institute, Seoul National
University

SOURCE: College of Medicine, Seoul, S. Korea
Biochemical and Biophysical Research
Communications

(2006), 339(1), 305-312

CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Several types of bispecific antibodies with affinity to both
adenoviral

coat proteins and a targeted antigen have been developed with
the aim of

providing the specific delivery of adenoviral gene therapy
vehicle. From

a phage display library of combinatorial dAb2s (each with an
anti-adenoviral knob protein VH fragment linked with an
anti-c-Met VH),

the authors serendipitously enriched and isolated a clone, JS5,
that has

polyspecificity such that it binds both the adenoviral knob
protein and

c-Met, despite having only one VH domain. The authors' indirect
observations suggest that the polyspecificity of JS5 is
developed through

accumulation of antibody specificity. The method of sequential immunization of a rabbit, first with the adenoviral knob protein and then with target antigens, may provide a method by which monoclonal antibodies with stand-alone polyspecificity may be developed. Such targeted polyspecific antibodies could readily be used for re-directing adenoviral vectors to target cells.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L9 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:429434 CAPLUS
DOCUMENT NUMBER: 142:480775
TITLE: Neutralizing antibody to **hepatocyte growth factor**
INVENTOR(S): **Chung, Junho; Hur, Youngmi**
PATENT ASSIGNEE(S): National Cancer Center, S. Korea
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
DATE			
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WO 2005044848	A1	20050519	WO 2004-KR2888
20041109			
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO,		

SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR,

NE, SN, TD, TG

KR 2005045419 A 20050517 KR 2003-79482
20031111

AU 2004287743 A1 20050519 AU 2004-287743
20041109

EP 1694700 A1 20060830 EP 2004-800068
20041109

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT,

IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS

CN 1878790 A 20061213 CN 2004-80033164
20041109

US 2007036789 A1 20070215 US 2006-578836
20060510

IN 2006DN03385 A 20070504 IN 2006-DN3385
20060612

PRIORITY APPLN. INFO.: KR 2003-79482 A
20031111

WO 2004-KR2888 W

20041109

AB The authors disclose the preparation and characterization of
neutralizing

antibodies against human **hepatocyte growth**

factor (HGF). The antibodies are capable of preventing

HGF binding to its receptor and may find utility in treating
intractable diseases and cancers.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE
FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L9 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:604215 CAPLUS

DOCUMENT NUMBER: 141:154893

TITLE: The Met receptor and $\alpha 6 \beta 4$ integrin can
function independently to promote carcinoma

invasion

AUTHOR(S): **Chung, Jun**; Yoon, Sang-Oh; Lipscomb,
Elizabeth A.; Mercurio, Arthur M.

CORPORATE SOURCE: Beth Israel Deaconess Medical Center,
Division of

Cancer Biology and Angiogenesis, Department
of

Pathology, Harvard Medical School, Boston,
MA, 02215,

USA

SOURCE: Journal of Biological Chemistry (2004),
279(31),

32287-32293

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and
Molecular

Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB It has been proposed that a constitutive, phys. association of
the Met

receptor and the $\alpha 6 \beta 4$ integrin exists on the surface of
invasive carcinoma cells and that **hepatocyte growth**
factor (HGF)-mediated invasion is dependent on
 $\alpha 6 \beta 4$. The potential significance of these results prompted us
to re-examine this hypothesis. Using three different carcinoma
cell lines

that express both Met and $\alpha 6 \beta 4$, we were unable to detect the
constitutive association of these receptors by co-immunopptn.

Moreover,

carcinoma cells that lacked expression of $\alpha 6 \beta 4$ exhibited
Met-dependent invasion toward **HGF**, and increasing Met expression
by viral infection of these cells enhanced invasion without
inducing

$\alpha 6 \beta 4$ expression. Although expression of $\alpha 6 \beta 4$ in
such cells enhanced their invasion to **HGF**, it also enhanced
their ability to invade toward other chemoattractants such as
lysophosphatidic acid, and this latter invasion was not
inhibited by a

function-blocking Met antibody. Finally, depletion of $\beta 4$ by RNA
interference in invasive carcinoma cells that express both
receptors

reduced the ability of these cells to invade toward **HGF** by
.apprx.25%, but it did not abrogate their invasion. These data
argue that

the invasive function of Met can be independent of $\alpha 6 \beta 4$ and
that $\alpha 6 \beta 4$ has a generic influence on the invasion of carcinoma
cells that is not specific to Met.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES
AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT